

was certainly difficult to explain why the detachment of a limb at the joint should so effectually arrest the malady; the divided ends of the nerves were still left in the stump. When the head of the bone remained, the muscles which were attached to it constantly tended, by their contractions, to excite the wounded nerves, which, it might be supposed, became still more sensible to external impression by the formation of their bulbous terminations. Would not such causes be amply sufficient where there was, as it were, an idiosyncrasy to neuralgia? In Allen's case, the stump was often spasmodically thrown forwards and upwards, which was always accompanied with a temporary increase of the pain. When the bone was entirely taken away, none of those movements could take place; the muscles were atrophied, and the nerves, no longer exposed to any cause of excitement, would probably atrophise also.—*Lancet*, Oct. 8, 1836.

37. *Case of Aneurism of the arteria innominata, and of the origin of the subclavian artery, treated by ligature of the common carotid.* But few attempts have been made to cure by operation aneurism of the innominata. The only cases on record we believe are those of Wardrop, Key, Evans, and of our countrymen, Mott and Morriison.* A sixth and successful attempt has recently been made by S. W. Fearn, Esq. of Derby, England. The case is one of so much interest and importance that every minute particular in relation to it, is of value. We shall therefore give the full details of the case as communicated to the *Lancet* by the operator.

CASE.—Aug. 22nd. Mary Scattergood, æt. 28, lives at Burton-on-Trent. She has been married eight years without having had any child, and menstruates regularly. She states that her present illness has existed during five months, and that it commenced with a violent fit of coughing, one night, when she was going to bed. Soon after this she experienced a throbbing swelling above the sternum, which, for four or five weeks, gave her a good deal of pain. She was bled several times by her medical attendants, Mr. Tomlinson and Mr. Lowe, with relief from the pain in the tumour, and, shortly afterwards, was admitted as an in-patient of the *Derby Infirmary*, under the care of Dr. Bent. I examined the case, whilst in hospital, with Dr. Bent and the other medical officers, and at that time made the following observations:—There was a rounded, pulsating tumour, immediately above the sternum, bounded, laterally, by the trachea and the tracheal margin of the sterno-cleido-mastoideus, which was evidently making considerable pressure upon the trachea, near its bifurcation, as evidenced by loud wheezing, frequent cough, and general difficulty of breathing. Loud *bruit de soufflet* was heard in the supra-clavicular space, and a less distinct bruit along the course of the right common carotid. The bruit in the subclavian artery was rendered more loud by stopping the transit of blood through the carotid, and when the circulation through the subclavian was arrested, the bruit in the carotid ceased. The tumour itself emitted sounds similar to, and synchronous with, those of the heart. The heart's sounds were natural, and there was no rôle in the lungs. The pulse in the right wrist was very indistinct; that in the left was natural as to strength and frequency.

The prevailing opinion at this examination appeared to be, that the disease was an aneurism of the arteria innominata, but the surgeon to whose care she was subsequently transferred, and one of his colleagues, considered that it was an aneurism of the arch of the aorta, and, of course, that any operation for its cure was quite out of the question.

She remained in the Infirmary during several weeks after this time, undergoing medical treatment, and this day (Aug. 22nd) was discharged at her own request.

Her difficulty of breathing and cough had of late increased very much, and the acetate of morphia had failed to procure her rest at night. The dyspnoea was aggravated by the slightest exertion, and the wheezing was rendered much more loud.

After her discharge I offered to take lodgings for her in the town, and to perform what appeared to me to be the requisite operation, to which proposal she very readily assented, as she had a conviction that nothing short of an operation could save her life.

* See present No. of this Journal, p. 329.

27. The patient came yesterday from Burton, in a carrier's cart, and was placed in her lodgings. She has passed a better night than usual, and I have this morning made a careful examination of her present condition. Her cough is troublesome, and the wheezing very loud; pulse almost imperceptible in the right wrist; in the left it is natural, and gives seventy-two beats in the minute. She is obliged to lie with her head a good deal raised. The tumour is very distinct, and throbbing, above the sternum, in the situation first noted, and also in the space between the sternal and clavicular attachment of the sterno-mastoid muscle. *Bruit de soufflet* loud in the supra-clavicular region, and still increased by stopping the circulation in the carotid; there is, however, no *bruit audible* along the course of the carotid. I made pressure for some time upon the carotid, so as to stop the circulation through it, and was pleased to find that her breathing became, in a marked degree, more free and less embarrassed. A similar experiment upon the subclavian did not affect the state of her breathing at all. The respiratory murmur is natural over the whole chest, as also are the sounds of the heart. Bowels not open to-day. To take $\frac{3}{4}$ ss. of the compound decoction of aloes; to lie in bed, and to have for diet, flour-pudding, tea, and gruel.

29. I have this morning visited the patient, with Dr. Bent and Mr. Wright, and again carefully examined the tumour and the vessels proceeding from it. We found her suffering very much from the difficulty of breathing, and unable to remain for any length of time in the recumbent position. The experiment of stopping the circulation through the carotid and subclavian was repeated, and the result, so far as the carotid was concerned, was quite in accordance with what happened at the last examination. Each time when the carotid was compressed, the breathing became more tranquil, and when the pressure was removed the dyspnoea instantly returned. A similar compression of the subclavian artery increased the difficulty of breathing, but when the subclavian and carotid arteries were compressed at the same time, the relief to the breathing was much the same as if the carotid only had been obstructed.

It was not difficult, from this and the previous examinations, to determine which vessel to select for the application of a ligature. The circumstance of the circulation in the subclavian artery being already considerably obstructed, and its entire obstruction adding to the distressing symptoms, taken with the further circumstance that pressure on the carotid was followed by a relief from the dyspnoea, seemed clearly to indicate, that in any operation for the cure of the disease, a preference must be given to ligature of the carotid. And here I cannot help remarking the analogy in one respect between this case, and the case in which Mr. Wardrop placed a ligature upon the subclavian artery for an aneurism of the innominate. In his case a preference was given to operating upon the subclavian, from its appearing that the circulation in the carotid had almost ceased, and in my patient I selected the carotid, because (with other reasons) the circulation in the subclavian is considerably arrested.

Operation.—30th. I this day proceeded to the performance of the operation, in the presence of about twenty medical gentlemen, amongst whom were Dr. Bent, Mr. Evans (Belper), Mr. Wright, Mr. Fox, &c. The patient was placed upon a table, and it was found necessary to keep her in nearly an upright position, owing to the difficulty of breathing, and the cough, being so much increased if she attempted to lie down. An incision about three inches in length was made, commencing an inch below the angle of the jaw, and extending downwards along the inner border of the sterno-cleido mastoideus. A small artery, which gave no trouble, was divided in this first step of the operation. The cervical fascia was then cut through, and, by a little dissection, the sheath of the vessels, with some twigs of the descendens noni, and the omo-hyoideus, were brought into view. After some trouble, owing to the depth of the vessels, from the head being inclined forwards, I opened the sheath above the omo-hyoideus, but was unable to pass a ligature beneath the vessel. I therefore at once divided the belly of the omo-hyoid, and thus exposed, much more freely, the vessels. An armed aneurismal needle was then passed beneath the carotid, from within outwards (contrary to the usual directions in such cases), care being taken not to injure the vein, or to include the par vagum, and, after waiting a short time, the ligature was firmly tied.

Scarcely an ounce of blood was lost, but the different steps of the operation

were much impeded by the frequent cough and the sense of suffocation, which considerably distended the veins, and by the necessity of keeping the patient almost constantly in an upright condition. The artery was large, and its coats appeared to be a good deal thickened. The sheath also appeared to be more than usually adherent to the vessels. But one ligature was employed, and, the wound being dressed, she was put to bed. She complained a good deal of pain in the right ear immediately after the operation.

Progress.—At three o'clock, an hour after the operation, she was breathing tranquilly, and sat up in bed, and smoked some tobacco. Her pulse was 86; by five o'clock it had risen to 96; and at eight o'clock it was 106. Her breathing, from the time of the operation, had, at intervals, been much oppressed, and she had had many violent fits of coughing. The dyspnoea was now (eight p. m.) very distressing, and I accordingly bled her to ten ounces, and administered forty drops of laudanum. Her breathing seemed a little relieved after the bleeding, and in a short time she was able to lie down. The pulse rose to 120.

31. One a. m. The patient is now breathing quietly, and has scarcely coughed at all for the last two hours; pulse 100. The pain in the right ear, of which she complained directly after the operation, has continued, but is now rather better.

Eight a. m. Has passed a comfortable night, having slept at intervals a little. She scarcely coughed at all from eleven o'clock last night until seven this morning. There seems now, however, to be a considerable accumulation of mucus in the trachea, and she has been coughing violently for the last hour. Bowels costive. Let her take an ounce and a half of the compound decoction of aloes immediately.

Noon. The cough continued until eleven o'clock. The left side of the face is now flushed and hot, and looks plump, and slightly livid; the right side has a shrunk appearance, is pale, and cold; the pain in the ear has entirely subsided. To repeat the decoction of aloes, and to have two dozen leeches applied to the upper part of the chest.

Six p. m. The leeches have bled freely, with evident relief to the breathing. Bowels not open. To have a common purging draught.

Sept. 1st., half-past one a. m. Bowels open twice, freely; she has, however, great difficulty of breathing, and makes a loud wheezing noise. *Habcat haust. c. ether. sulph. ʒss., et tr. opii. gtt. xxx.*

Eight a. m. Soon after the last visit her breathing became better, and she has passed a very good night; she has slept for two or three hours, and expresses herself this morning as a good deal relieved. Bowels open; pulse 120; the pulse in the right wrist about the same as before operation,—if any thing, rather more feeble. She says that she cannot now feel the "beating of the lump;" which she could distinctly before the operation, but she feels a stoppage at the lower part of the windpipe. Skin cool, face not flushed. She passed the remainder of the day comfortably, sleeping for two or three hours at a time, and she has been less troubled with the cough and dyspnoea.

2. Eight a. m. Has slept but little; her cough has teased her most in the night, though she says her breathing is more free. Has expectorated a large quantity of frothy mucus, and has been repeatedly so sick as to vomit; pulse 120.

Five p. m. The expectoration has, during the whole day, been very profuse, and attended with violent fits of coughing. There is the most marked mucus rattle in the trachea and the larger bronchial tubes. The bruit de soufflet is heard above and below the clavicle, as before the operation, and the pulse in the right wrist has become much more distinct. The sickness has abated; pulse 135. *Appl. Hirudines xij. sterno, et sumat postea haust. c. ether. sulph. ʒss., et tr. opii. gtt. xxxv.*

Dressed the wound, which appears to have healed by the first intention.

Half-past eleven p. m. Has taken two doses of the ether and laudanum, and appears now more composed. There is less rattle, and the violence of the cough has a good deal abated.

3. Nine a. m. Has slept, at intervals, for several hours, and says that her breathing this morning is more free. There is, however, a good deal of mucus rattle, and the pulse is 140, and weak. Her strength seems good. To take beef-tea, and to continue the ether and laudanum at intervals of four hours.

Eleven p. m. Has been much more comfortable during the day, though the

frothy accumulation continues. Bowels freely open. Continue the ether and the tincture of opium.

4. Has had a good night, and says her breathing is much better than it was before the operation. Thinks the tumour is less; it feels perhaps a little more solid, but the pulsation in it remains about the same.

5. Has been up during near an hour, whilst her bed was made; feels much better; slept six hours during the night; wound appears to be quite healed, excepting at the ligature; pulse 106.

7. A good night, and this morning she is as well as usual; pulse 100; no fever. Pergat.

9. Continues to improve; has had an excellent night, and says she has never, since the commencement of her illness, felt the beating of the tumour so little as she does now; pulse 96. If the circulation through the subclavian be stopped, the breathing becomes shorter, and more difficult, and if the pressure be continued for some time, the embarrassment to the breathing is very distressing. Even slight exertion adds to the dyspnœa, but the cough and expectoration are now very trifling. The tumour is considerably lessened, and its pulsations are not nearly so distinct.

11. In good spirits, and complains only of the dyspnœa. The pulsations of the tumour cannot now be felt at the space between the sternal and clavicular attachments of the sterno-mastoid, and they are much more feeble above the sternum. *Apr. Empl. lytlæ. parti superiori sterni, et cont. Haust. ether. et tr. opii. h. s.*

19. Has been going on well since the last report. The dyspnœa was entirely relieved by the blister, and has not since returned, and the cough is nearly gone. Her nights are good; she sits up during seven or eight hours daily, and her breathing is not affected by the exertion of walking about, or going up and down stairs. The tumour still pulsates, but seems to be gradually diminishing in size. Pressure on the subclavian makes her breathing "thick," as she calls it, but does not produce any thing like the distress it would have occasioned a week ago.

27. It is now a month since the operation was performed. The patient walks out daily; her difficulty of breathing is entirely removed, and only returns, slightly, if she walks fast. The tumour still pulsates distinctly, but any pressure upon it does not give rise to dyspnœa, or inconvenience of any kind. She sleeps well at night, and has for the last ten days been entirely without medicine. She had expressed a wish to return to her friends at Burton, and as she appears to be so well, I have permitted her to do so."

Mr. Fearn promises to make public the future progress of the case.

38. *Case of Fracture of the Neck and Trochanter of the Thigh-bone, attended with Inversion of the Limb.*—Notwithstanding the statements of Paré, Petit, and Dessault, concerning inversion of the limb in fractures of the neck of the thigh-bone, it is now known that this symptom is so seldom present, that farther observations are required to enable us to estimate its relative frequency and importance in this injury.

In one form of fracture of the neck of the thigh-bone, Mr. Guthrie has offered an explanation of the cause of inversion of the limb, founded on a consideration of the direction of the fracture in relation to the attachment of the muscles rotating the thigh outwards. Whenever the fracture is external to the insertions of the *pyriformis*, *gemelli*, *obturatores*, and *quadratus* muscles, yet sufficiently within the insertion of the *glutæus medius* and *minimus*, Mr. Guthrie states that the toes will be turned inwards.

The following case related by GEORGE GULLIVER, tends to confirm this observation.

"An insane officer, aged 30, fell on his right hip, and fractured the neck of the thigh-bone. Shortening and inversion of the limb immediately followed, and remained until his death, which took place from disease of the lungs eleven months after the accident.

"The thigh-bone exhibits fracture of the neck at its junction with the shaft, the fracture extending downwards and backwards through the great, to the basis of the little trochanter, thus detaching the posterior part of the former and the whole of the latter process with the upper fragment. The head of the bone is considerably depressed, but the fracture is firmly consolidated by abundant deposit of new